

# Knowledge Organiser

## Science - Sound

### What should I already know?

To be able to identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.

### Key Vocabulary

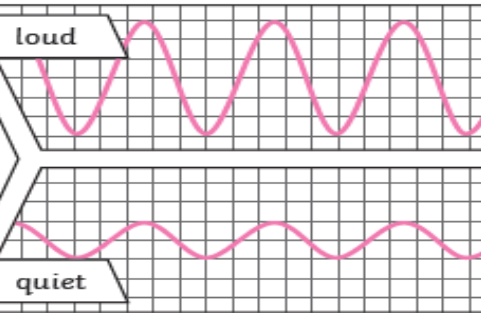
Sound	A thing that can be heard.
Source	Where something comes from
Vibrate	to move rhythmically and steadily to and fro
Vibration	A quick movement back and forth
Travel	How something moves around
Pitch (high, low)	How low or high a sound is.
Volume	The loudness of a sound.
Faint	The level of sound weak or slight.
Loud	The level of sound is very high
Insulation	The act of covering something to stop sound from escaping or entering.

### Useful Links

[Sound - KS2 Science - BBC Bitesize](https://www.bbc.com/bitesize/science/ks2/sound)  
[School Learning Zone - Sound and Hearing](https://www.school-learningzone.co.uk/sound-and-hearing)  
 [\(school-learningzone.co.uk\)](https://www.school-learningzone.co.uk/sound-and-hearing)  
[What does sound look like? - Science Museum Group Learning](https://www.science-museum.org/learning)

### Useful Diagrams

The size of the **vibration** is called the **amplitude**. Louder sounds have a larger **amplitude**, and quieter sounds have a smaller **amplitude**.



Sound can travel through solids, liquids and gases. Sound travels as a **wave**, **vibrating** the **particles** in the medium it is travelling in. Sound cannot travel through a vacuum.

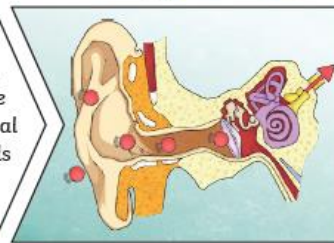
When you hit the drum, the drum skin **vibrates**. This makes the air **particles** closest to the drum start to **vibrate** as well.



The **vibrations** then pass to the next air **particle**, then the next, then the next. This carries on until the air **particles** closest to your ear **vibrate**, passing the **vibrations** into your ear.



Inside your **ear**, the **vibrations** hit the **eardrum** and are then passed to the middle and then the inner **ear**. They are then changed into electrical signals and sent to your brain. Your brain tells you that you are hearing a sound.



**Pitch** is a measure of how high or low a sound is. A whistle being blown creates a high-**pitched** sound. A rumble of thunder is an example of a low-**pitched** sound.



### Sticky Learning

- A sound produces vibrations which travel through a medium from the source to our ears. Different mediums such as solids, liquids and gases can carry sound, but sound cannot travel through a vacuum (an area empty of matter). The vibrations cause parts of our body inside our ears to vibrate, allowing us to hear (sense) the sound.
- The loudness (volume) of the sound depends on the strength (size) of vibrations, which decreases as they travel through the medium. Therefore, sounds decrease in volume as you move away from the source. A sound insulator is a material which blocks sound effectively.
- Pitch is the highness or lowness of a sound and is affected by features of objects producing the sounds. For example, smaller objects usually produce higher pitched sounds.